1941-112

United States Department of Agriculture Bureau of Agricultural Mconomics

Trends in Farm Wages, Farm and Nonfarm Income, Industrial Production and Unemployment.

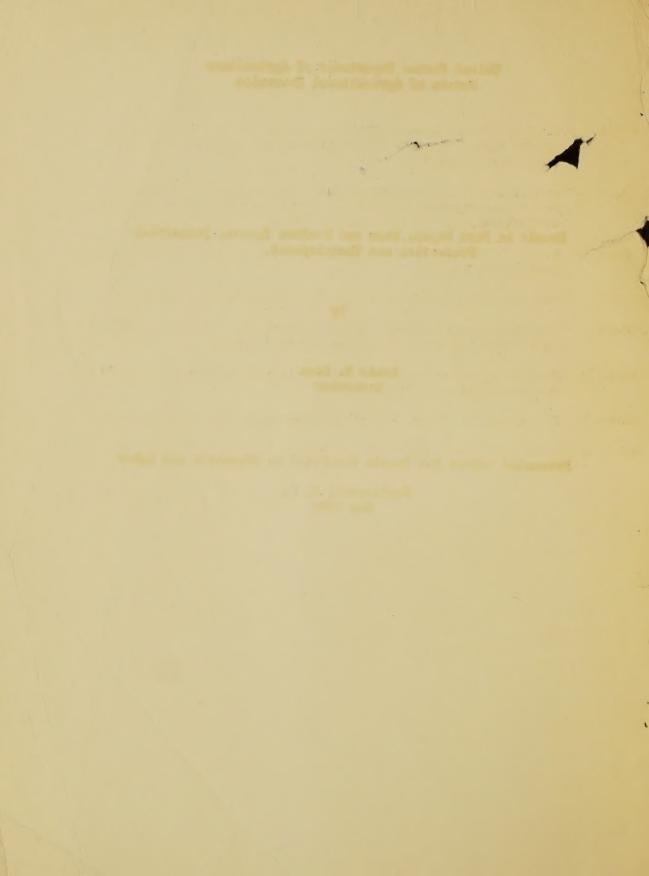
by

Louis H. Bean Counseler



Presented before the Senate Committee on Education and Labor

Washington, D. C. May 1940



### List of Tables and Charts

- Table 1. Gross income from farm production, expenditures for labor and value of farm implements and machinery on farms, by types of farms, 1899 and 1929.
- Table 2. Proportion of farm cash income spent for wages, for operating farm motor equipment, including depreciation allowance on all farm machinery, selected years, 1910-39.
- Chart 1. Relation of employment in agriculture to the size of the agricultural enterprise.
- Chart 2. Farm wages and per capita farm and nonfarm income, 1910-39.
- Table 3. Farm wage rates (without board) per month and per day and per capita total and per capita farm income (cash).
- Chart 3. Working population in agriculture, percent of U. S. total gainful workers 10 years and over.
- Chart 4. Industrial production, industrial employment and unemployment.
- Table 4. Relation of national income to cash wages paid to hired farm labor.

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Table 1. Gross income from farm production, expenditures for labor, and value of farm implements and machinery on farms, by types of farms, 1899 and 1929.

The aggregate amount of money paid out in the form of cash wages has over a period of many years depended chiefly upon the amount of gross income from farm production, but in recent years that relationship has been altered to a noticeable extent. In 1899 cash farm wages amounted to \$365,000,000 or about 9.7 percent of the total gross income for that year. In 1929 the cash wage bill amounted to \$955,000,000 or 8.7 percent of gross income. Chiefly through a rise in wage rates per day and per month the farm wage bill had risen with gross income, but not quite as much.

The cash wage bill for 1939 was about \$550,000,000 or not more than 6 percent of gross income. This reflects the fact that the rise in farm wages since 1933 has not been in proportion to the rise in farm income.

In contrast to the actual and relative decline in the farm wage bill, the proportion of farm income paid out for farm implements, machinery, automobiles, trucks and tractors, has increased. This is suggested by the fact that the inventory value of farm implements and machinery in 1899 was equivalent to 20.2 percent of gross income, in 1929 to 30.0 percent, and in 1939 to probably about 35 percent.

By types of farms the proportions of gross income paid for labor declined between 1899 and 1929 as follows: grain farms, from 10.0 percent to 8.3; dairy farms from 13.3 percent to 8.6; livestock farms, 8.2 percent to 6.7. For cotton farms the proportion was unchanged at 5.9 percent, and for fruit farms it increased from 20.0 percent to 23.7.

More marked changes by types of farms have undoubtedly taken place since 1929, especially where mechanization has made greatest progress.

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Table 1.

Gross Income from Farm Production, Expenditures for Labor, and value of Farm Implements and Machinery on Farms, by Typos of Farms, 1899 and 1929.

	Gross income				
Types	value of pro-	Expend.	Value of	Percent of	gross income
of	ducts (not .	for	impl. &	Exp. for	Value of
farms	fed to stock)	labor	machinery	labor	machinery
Idins	thousand	thousand	Married Street, Street	magazi are-day-seri-da-est-total-total	
	dollars	dollars	dollars		
1899	UUIIAIS	(TO T TOT 1)	(1) 22 20 2 15		
Hay & grain	1,003,198	100,097	218,536	10.0	21.8
Vegetables	103,672	16,500	21,567	15.9	20.8
Fruits	75,153	15,120	14,373	20.1	19.1
Livestock	1,232,846	101,545	235,508	8.2	19.1
Dairy products	281,314	37,428	71,916	13.3	25.6
Tobacco	65,341	5,424	8,151	8.3	12.5
Cotton	461,113	27,043	47,875	5.9	10.4
Rice	7,630	1,707	1,212	22.4	15.9
Sugar	39,050	14,574	33,651	37.3	86.2
Flowers & plant		4,156	1,367	22.6	7.4
Nursery product		2,305	540	22.9	5.4
Miscellaneous	466,353	39,406	106,565	8.4	22.9
MISCELLEMEOUS	-100,000	77, 100		,	
TOTAL	3,764,178	365,306	761,262	9.7	20.2
20 4344	2,10,1-1-	, , , ,	•		
1929					
General	1,544,996	86,112	565,875	5.6	36.6
Cash grains	1,338,335	111,475	624,698	8.3	46.7
Cotton	1,698,107	99,472	278,805	5.9	16.4
Crop specialty	834,365	84,785	187,160	10.2	22.4
Fruit	474,315	112,531	117,195	23.7	24.7
Truck	243,605	53,733	56,582	22.1	23.2
Dairy	1,672,132	144,530	575,527	8.6	34.4
Livestock	3,922,459		1,161,576	6.7	25.5
Animal spec.	1,740,974	107,691	513,244	6.2	29.5
Stock-ranch	509,423	50,878	72,805	10.0	14.3
Poultry	331,167	15,824	70,741	4.8	21.4
Self-sufficing	211,720	4,091	62,279	1.9	29.4
Abnormal and					,
. unclassified	412,192	84,297	176,742	20.5	42.9
			- 1		
'TOTAL 1929	11,011,329	955,420	3,301,654	8.7	30.0

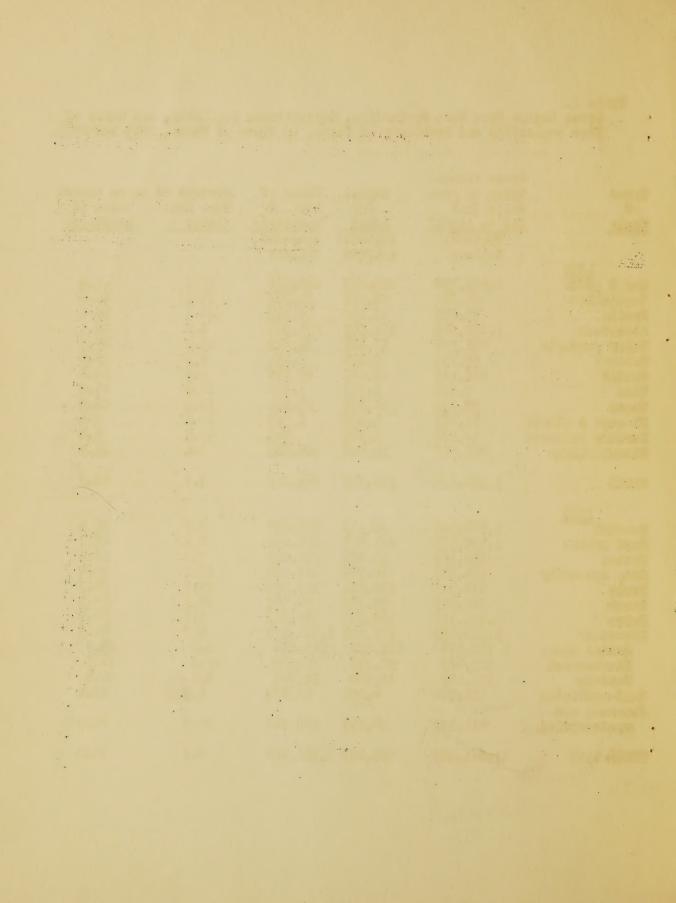


Table 2. Proportion of farm cash income spent for wages, for operating farm motor equipment, including depreciation allowance on all farm machinery, selected years 1910-39.

The increased use of motor equipment during the past 25 years has meant a larger share of farm cash income going for annual depreciation and operating costs, but it is only during the past decade that this trend has been noticeably accompanied by a decline in the proportion of income paid out for cash wages. During the years 1910-1914, cash wages represented between 9.1 and 9.5 percent of cash income. In 1924 it was only slightly lower, at 9.0 percent, but the cost of operating farm machinery, including automobiles, trucks and tractors, and annual depreciation on all farm machinery, rose markedly from 5.6 percent of cash income in 1910 to 14.8 percent in 1929. In 1939 these machinery and motor equipment costs and allowances represented 19 percent of farm cash income (including Government payments), while cash wages were down to 6.7 percent of cash income (corresponding to about 6 percent of gross).

The downward trend in the share of farm cash income paid out as farm wages, if projected into the immediate future would indicate a proportion of about 6.5 percent as most probable for the early 1940's. Should farm income rise from the present levels, the proportion going for farm wages might be expected to fall below 6.5 percent, as it did during the periods of rising income, such as 1915-1918, 1921-1925, and 1932-1936; and should farm income decline from the present level, the proportion going for farm wages might be expected to rise as during the periods of declining income of 1919-1921, 1929-1932, and 1936-1939.

Table 2. Proportion of farm cash income spent for wages, for operating farm motor equipment, including depreciation allowance on all farm machinery, selected years 1910-1939.

(	Cash farm income million dollars	Cash farm wages million dollars	Farm wages percent of cash income	Depreciation allowance on all farm machinery and cost of operating automobiles, trucks and tractors.  Percent of cash income.				
1910	5,785	528	9.1	5.6				
1914	6,015	566	9.4	7.5				
1919	14,436	1099	7.6	7.7				
1924	10,150	912	9.0	12.0				
1929	11,221	955	8.5	14.8				
1934	6,273	393	6.3	18.8				
1939	7,711	550	7.1	21.0				
Including government payments:								
1934	6,720	<b>3</b> 93	5.8	17.5				
1939	8,518	550	6.7	19.0				



Chart 1. Relation of employment in agriculture to the size of agricultural enterprise.

The trend in total farm labor requirements has been downward. As one of the components in the total farm wage bill, the number of farm laborers is not likely to increase noticeably, even if there were a demand for a 10 percent increase in total acreage and livestock production. This may be inferred from the course of total acreage harvested and livestock produced annually since 1910, the course of employment and the volume of harvested acreage and livestock production per worker.

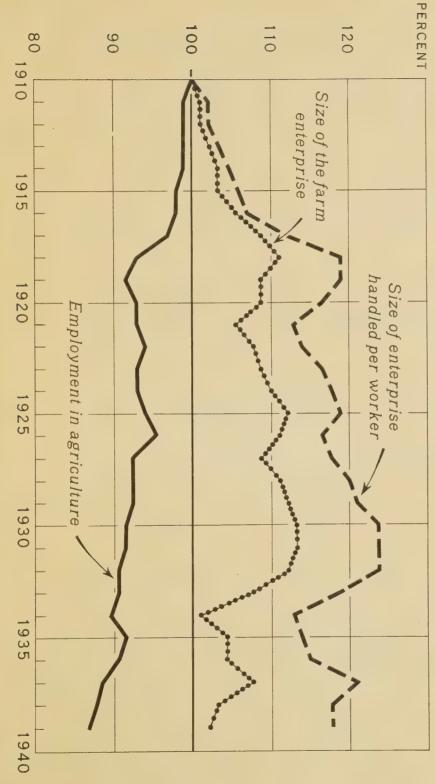
Between 1909-1910 and 1931-1932 the total of acreage harvested and livestock produced, increased about 13 percent, the number of hired and farm family workers decreased about 10 percent, and total acreage and livestock per worker increased 25 percent. In addition, there was an increase in productivity per acre and per unit of other capital, showing up as an increase in production per worker of about 40 percent.

Since 1932 the trend in total acreage harvested and livestock production has been affected by two major factors, namely, the agricultural programs and weather. The former has held down acreages usually devoted to the production of export surpluses (cotton, wheat, corn) and the abnormal weather in most of the recent years has been responsible for greater abandonment than usual, thus reducing harvested acreage, and the amount of acreage per worker.

A restoration of acreages harvested and livestock produced to the totals of 1932 would mean an increase in farm labor requirements of about 10 percent, but this would not necessarily increase the domand for farm labor by an equivalent amount, for it is now possible for the average farm laborer to handle a larger number of acres and a larger number of livestock than in 1932. The greater part of any prospective increase in total acreage and livestock requirements for the domestic markets can undoubtedly be taken care of by the present number of hired workers and family labor.

## RELATION OF EMPLOYMENT IN AGRICULTURE THE SIZE OF AGRICULTURAL ENTERPRISE TO

INDEX NUMBERS (1910=100)



U. S. DEPARTMENT OF AGRICULTURE

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The other component of the total farm wage bill, namely, the general level of farm wage rates has in recent years failed to maintain its previous relation to the farmer's ability to pay and to the competitive influence of industrial wage rates and earnings. While farm wage rates are now relatively lower in relation to farm and nonfarm income, they will nevertheless continue, in the near future, to be dominated and limited by the course of farm and nonfarm income. This means that farm wage rates in general may be expected to rise or fall more or less as farm and nonfarm income may rise or fall, but that there is little likelihood that changes in farm wage rates will materially alter the present disparity between the annual earnings of farm labor and the earnings of other groups.

During the latter half of the 1920's per capita farm income from farm production available for living averaged about 160 percent of the prewar income. The per capita money income of the nonfarm population averaged about 195 percent. Farm wages were held between these two levels, at something less than 180 percent, or approximately equal to the average of the farm and nonfarm income levels.

By 1932 per capita farm income available for living had fallen to about 41 percent of the prewar income, per capita nonfarm income to 121 percent, and farm wages to 96 percent. The comparable average of farm and nonfarm income was 89.

Since then, however, the average of per capita farm and nonfarm income advanced to an index of 144 by 1937 and farm wage rates only to an index of 126, a disparity of at least 15 percent. (Revisions of farm income estimates now in process may show a somewhat relatively higher level of farm income than that used here, and therefore a somewhat greater disparity.

In 1939, with farm and nonfarm income averaging 133 percent of the prewar level, and farm wage rates 117 percent, the discrepancy between them was still at least 15 percent.

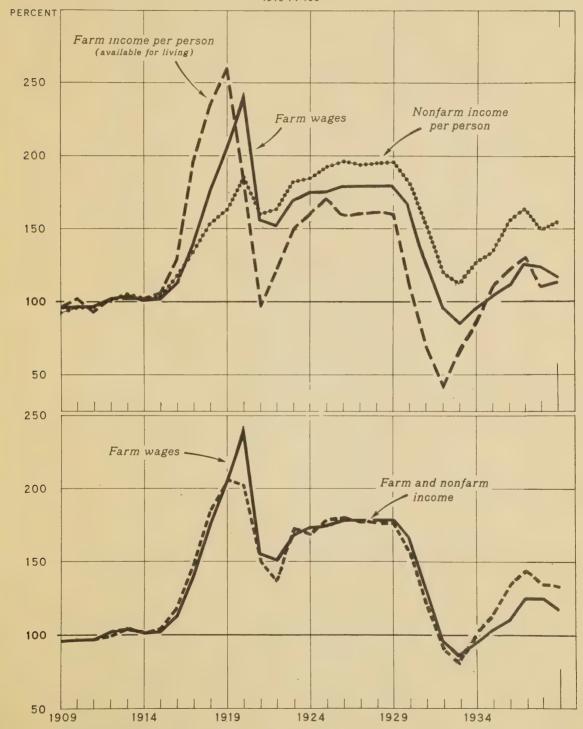
The logical explanation of this lag in farm wages, especially after 1937, may be found in the pressure of urban unemployed in search of economic security on the land, a surplus of farm labor in excess of current and prospective labor requirements and continued reduction in the amount of land and livestock per worker.

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## FARM WAGES AND FARM AND NONFARM INCOME

1910-14=100





- Table 3. Farm wage rates (without board) per month and per day and per capita total and per capita farm income (cash).
- (a) Farm wage rates per day have been subject to influences in addition to those that have determined the changes in rates per month during the past decade. Per day rates declined more during the period 1929-32 than did the per month rates, particularly in the highly industrialized states, probably because of the additional impact of industrial unemployment seeking temporary employment and economic refuge on the land.
- (b) By 1937 rates per day were restored more nearly in line with rates per month, although both the per day and the per month rates failed to keep pace with the recovery in farm income and total (farm and nonfarm) income. In a number of states including those of New England, Iowa, Missouri, Louisiana, Utah, Washington, Oregon and California, per day rates advanced relatively more and more nearly equaled their 1929 averages than did the per month rates.
- (c) Compared with the situation in 1929, farm wages in 1939 were more nearly in line with farm income than with nonfarm income. For the country as a whole they remained fairly stable during the three year period 1937-39. Differences in trends developed after 1937 in a number of areas. In some areas farm wage rates per month continued to advance in spite of the decline in farm income and industrial activity after 1937. These states include some New England states, Ohio, Illinois, Iowa, South Daketa, Montana, Oregon, New Mexico, Florida, South Carolina, Kentucky and Virginia. Rates per day were generally lower in 1939 than in 1937, again reflecting the fact that in a period of recession in both farm income and industrial activity, rates per day are more vulnerable.



Farm Wage Rates Without Board, per Month and per Day, per Capita Total Income, and per Capita Farm Income (Cash) 1932 as percent of 1929

	Farm Wage	Rates	Per Capi	ta Income
	Per Month	Per Day	Total	Cash Farm
United States	56.4	53.3	58.8	40:7
Maine	60:0	60:4	67:2	45:3
New Hampshire	60:3	62:8	65.3	52.5
Vermont	54.9	57:4	63:1	56:5
Rhode Island	70.7	64.5	68:2	56:0
Massachusetts	70.5	67:1	69:6	51.2
Connecticut	57.1	62.3	61.9	45.1
New York	59:0	54.5	63.7	50.3
New Jersey	67:4	61:9	65.6	56.6
Pennsylvania	58.6	54:3	57.7	51.3
Ohio	55.1	46.8	54.8	44.2
Indiana	55:6	46.5	53.4	43.0
Illinois	53.8	46.6	51.5	42.5
Michigan	45:0	41.8	52.8	46.4
Wisconsin	44.6	46.8	55.6	39.8
Minnesota	49:0	47.9	60.7	41.2
Iowa	50:4	44.1	51.4	37.6
Missouri	59:1	54.1	59:0	41.9
North Dakota	48.2	38.6	41.2	28:1
South Dakota	46:9	42:3	42.6	25.0
Nebraska	52:2	43.5	51.8	33:8 35:1
Kansas	55.4	44.2	53.9	48:9
Delaware	58:7	48:3	59.9	50.2
Maryland	65:1	54.6	69.0	40.5
Virginia	58.4	54:2	64.6 57.7	42.3
West Virginia	58:1	52:2	56.5	39:1
North Carolina	44.5	44.5 48.3	57.7	35:6
South Carolina	48:0	45.1	57.2	30:9
Georgia	43.9 58.1	57.0	60:2	62.9
Florida	53.9	52.8	56.6	42.7
Kentucky	54 <b>.</b> 6	52.3	54:7	39:9
Tennessee	46.5	42.9	48.0	33.5
Alabama	45.0	39.9	48.9	30.2
Mississippi	38:7	43.4	51.7	39:2
Arkansas Louisiana	45.5	51.0	60:0	38:7
	53:9	47:0	48.9	32.6
Oklahoma Texas	51.8	48.1	57:3	41.3
Montana	50:4	50.1	49.8	32:7
Idaho	51.3	47:3	50.5	38:3
Wyoming	53.2	49:3	56.8	38.8
Colorado	54.1	49.5	59.9	36:1
New Mexico	60.8	53:3	59:6	32.7
Arizona	58.1	53.3	54:1	31:0
Utah	54.3	59.4	55.2	39:0
Nevada	65.6	65.2	62.6	33.7
Washington	54:9	50:6	55:8	41:1
Oregon	54:9	51:5	55:7	44:2
California	58.9	57.2	61.4	52.0
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Table 3b. Farm Wage Rates Without Board, Per Month and Per Day, Per Capita Total Income, and Per Capita Farm Income (Cash) 1937 as percent of 1929

U. S. : 71.0 : 71.6 : 83.4 : 77.  Me. : 72.4 : 72.6 : 86.1 : 78.  N. H. : 68.6 : 78.9 : 82.3 : 69.  Vt. : 67.8 : 74.4 : 78.2 : 69.  R.I. : 79.9 : 73.5 : 86.1 : 72.  Mass. : 73.2 : 73.7 : 81.5 : 70.  Comn. : 74.2 : 79.6 : 85.7 : 75.  N.J. : 74.7 : 72.2 : 79.1 : 81.  Pa. : 73.1 : 73.2 : 79.1 : 81.  Pa. : 73.1 : 73.2 : 79.9 : 78.7  N.J. : 74.7 : 72.2 : 79.1 : 81.  Pa. : 73.1 : 73.2 : 79.9 : 78.  Chio : 74.9 : 75.2 : 86.5 : 86.  Ind. : 78.7 : 75.0 : 86.9 : 86.  Ind. : 77.8 : 75.0 : 86.9 : 86.  Mich. : 77.8 : 75.5 : 91.6 : 88.  Mich. : 77.8 : 75.5 : 91.6 : 88.  Mich. : 77.8 : 75.5 : 91.6 : 88.  Mich. : 77.8 : 75.5 : 91.6 : 88.  Mich. : 77.8 : 75.5 : 80.9 : 74.  Mo. : 69.6 : 74.8 : 75.5 : 80.9 : 74.  Mo. : 69.6 : 74.8 : 75.7 : 75.1 : 65.  S. Dak. : 61.0 : 62.1 : 71.8 : 53.  Nebr. : 61.3 : 57.1 : 76.7 : 76.  Kans. : 67.9 : 68.0 : 82.4 : 66.  Del. : 78.6 : 75.9 : 83.8 : 75.  Md. : 76.9 : 73.2 : 94.6 : 82.  Va. : 70.9 : 72.9 : 89.8 : 72.  W. Va. : 71.4 : 67.4 : 89.0 : 64.  N. C. : 68.4 : 68.3 : 95.9 : 108.  S. C. : 68.2 : 69.1 : 97.1 : 83.  Miss. : 66.6 : 66.4 : 80.2 : 78.  Ark. : 68.6 : 75.6 : 79.4 : 89.0 : 64.  Mont. : 69.8 : 68.0 : 93.2 : 76.  Tenn. : 74.0 : 70.6 : 91.6 : 77.  Ala. : 72.9 : 70.0 : 75.5 : 73.  Miss. : 66.6 : 66.4 : 80.2 : 78.  Ark. : 68.6 : 67.3 : 75.7	•	Farm Wage Rates			:			
Me.	•	Per Month	:	Per Day	:	Total	:	Cash Farm
Me.	:	71.0	:	71.6	:	83.4	:	77.3
N. H.	•				:		•	78.0
Vt.         : 67.8         : 74.4         : 78.2         : 69.           R.I.         : 79.9         : 73.5         : 86.1         : 72.           Conn.         : 74.2         : 73.7         : 81.5         : 70.           Conn.         : 74.2         : 79.6         : 85.7         : 56.           N.Y.         : 68.9         : 67.0         : 78.7         : 75.           N.J.         : 74.7         : 72.2         : 79.9         : 78.           Pa.         : 73.1         : 73.2         : 79.9         : 78.           Ohio         : 74.9         : 75.2         : 88.5         : 86.           Ind.         : 78.7         : 75.0         : 86.9         : 86.           Ind.         : 77.1         : 78.6         : 75.1         : 88.           Ind.         : 77.1         : 78.6         : 75.1         : 88.           Ind.         : 77.1         : 78.6         : 75.1         : 88.           Ind.         : 77.1         : 78.6         : 75.1         : 86.9           Ind.         : 77.1         : 76.0         : 76.9         : 86.9         : 74.           Wisc.         : 69.7         : 70.3         : 87.1 <td< td=""><td></td><td></td><td>:</td><td></td><td>:</td><td></td><td>:</td><td>69.2</td></td<>			:		:		:	69.2
R.I. : 79.9 : 73.5 : 86.1 : 72.  Mass. : 73.2 : 73.7 : 81.5 : 70.  Comm. : 74.2 : 79.6 : 85.7 : 56.  N.Y. : 68.9 : 67.0 : 78.7 : 75.  N.J. : 74.7 : 72.2 : 79.1 : 81.  Pa. : 73.1 : 73.2 : 79.9 : 78.  Ohio : 74.9 : 75.2 : 88.5 : 86.  Ind. : 76.7 : 75.0 : 86.9 : 86.  Ind. : 77.8 : 75.5 : 91.6 : 88.  Mich. : 77.8 : 75.5 : 91.6 : 88.  Mich. : 77.8 : 75.5 : 91.6 : 88.  Mich. : 77.8 : 75.5 : 91.6 : 88.  Iowa : 70.7 : 75.5 : 80.9 : 74.  Mo. : 69.6 : 74.8 : 75.7 : 67.  N. Dak. : 67.2 : 63.7 : 75.1 : 65.  S. Dak. : 61.0 : 62.1 : 71.8 : 53.  Nebr. : 61.3 : 57.1 : 76.7 : 56.  Eans. : 67.9 : 68.0 : 82.4 : 66.  Del. : 78.6 : 75.9 : 83.8 : 75.  W. Va. : 70.9 : 73.2 : 94.6 : 82.  W. Va. : 70.9 : 72.9 : 89.8 : 72.  W. Va. : 71.4 : 67.4 : 89.0 : 64.  Mass. : 66.6 : 66.4 : 68.3 : 95.9 : 108.  Ga. : 69.0 : 71.4 : 89.2 : 76.  Tenn. : 74.0 : 70.6 : 86.1 : 77.  Ala. : 72.9 : 70.0 : 75.5 : 73.  Miss. : 66.6 : 66.4 : 82.9 : 85.  Tenn. : 74.0 : 70.6 : 86.1 : 77.  Ala. : 72.9 : 70.0 : 75.5 : 73.  Miss. : 66.6 : 67.3 : 75.7 : 77.  La. : 61.6 : 70.6 : 91.6 : 78.  Mon. : 69.8 : 68.0 : 93.2 : 76.  Howa : 77.6 : 77.5 : 77.  Ala. : 72.9 : 70.0 : 75.5 : 73.  Ark. : 68.6 : 67.3 : 75.7 : 77.  La. : 61.6 : 70.6 : 91.6 : 78.  Mon : 78.6 : 79.4 : 91.6 : 84.  Mont. : 69.8 : 68.0 : 93.2 : 76.  Miss. : 66.6 : 67.3 : 75.7 : 77.  La. : 61.6 : 70.6 : 91.6 : 78.  Mon : 78.8 : 76.9 : 111. : 91.6 : 78.  Mon : 78.8 : 76.9 : 111. : 91.6 : 78.  Mon : 78.8 : 76.9 : 111. : 91.6 : 78.  Mon : 78.8 : 76.9 : 111. : 91.6 : 78.  Mon : 78.8 : 78.9 : 91.1 : 92.  Colo. : 74.8 : 70.3 : 94.1 : 80.2 : 76.  Mon : 78.6 : 79.4 : 97.7 : 85.  W. Vash. : 78.6 : 79.4 : 97.7 : 85.  W. Mon : 78.3 : 76.9 : 111. : 70.  Mayo. : 71.2 : 73.9 : 91.1 : 92.  Colo. : 74.8 : 70.3 : 94.1 : 80.2 : 76.  Miss : 66.6 : 79.4 : 97.7 : 85.  W. Wesh. : 75.6 : 79.4 : 85.3 : 72.			•				•	69.9
Mass. : 73.2 : 73.7 : 81.5 : 70. Conn. : 74.2 : 79.6 : 85.7 : 56. N.Y. : 68.9 : 67.0 : 78.7 : 75. N.J. : 74.7 : 72.2 : 79.1 : 81. Pe. : 73.1 : 73.2 : 79.9 : 78. Pe. : 73.1 : 73.2 : 79.9 : 78. Pe. : 73.1 : 73.2 : 79.9 : 78. Pe. : 73.1 : 73.2 : 79.9 : 78. Pe. : 73.1 : 73.2 : 79.9 : 78. Pe. : 73.1 : 73.2 : 79.9 : 78. Pe. : 73.1 : 73.2 : 79.9 : 78. Pe. : 73.1 : 73.2 : 79.9 : 78. Pe. : 74.9 : 75.0 : 86.9 : 86. Ind. : 74.9 : 75.0 : 86.9 : 86. Ind. : 77.1 : 78.6 : 75.1 : 88. Pe. : 88.7 : 70.7 : 75.5 : 91.6 : 88. Wisc. : 69.7 : 70.3 : 87.1 : 76. Winn. : 74.6 : 78.8 : 93.4 : 85. Iewa : 70.7 : 75.5 : 80.9 : 74. Mo. : 69.6 : 74.8 : 75.7 : 67. N. Dak. : 67.2 : 63.7 : 75.1 : 65. S. Dak. : 61.0 : 62.1 : 71.8 : 53. Nebr. : 61.3 : 57.1 : 76.7 : 56. Kans. : 67.9 : 68.0 : 82.4 : 66. Del. : 78.6 : 75.9 : 83.8 : 72. W. Va. : 70.9 : 72.9 : 89.8 : 72. W. Va. : 70.4 : 67.4 : 89.0 : 64. S. C. : 68.2 : 69.1 : 97.1 : 83. Ga. : 69.0 : 71.4 : 67.4 : 89.0 : 64. S. C. : 68.2 : 69.1 : 97.1 : 83. Ga. : 69.0 : 71.4 : 89.2 : 76. File. : 72.8 : 76.7 : 94.6 : 88. Ky. : 73.7 : 73.9 : 82.9 : 85. Tenn. : 74.0 : 70.6 : 86.1 : 77. Alae. : 66.6 : 66.4 : 80.2 : 78. Ark. : 68.6 : 67.3 : 75.7 : 77. Miss. : 66.6 : 66.4 : 80.2 : 78. Ark. : 68.6 : 67.3 : 75.7 : 77. Idaho : 74.7 : 74.7 : 93.6 : 80. Wyo. : 71.2 : 73.9 : 91.1 : 92. Colo. : 74.8 : 70.8 : 93.9 : 81. Persh. : 75.6 : 79.4 : 89.9 : 83. Persh. : 75.6 : 79.4 : 89.9 : 84.								72.7
Comn.					•			70.7
N.Y.					•			56.7
N.J. : 74.7 : 72.2 : 79.1 : 81. Pa. : 73.1 : 73.2 : 79.9 : 78. Ohio : 74.9 : 75.2 : 88.5 : 86. Ind. : 78.7 : 75.0 : 86.9 : 86. Ind. : 77.1 : 78.6 : 75.1 : 88. Mich. : 77.8 : 75.5 : 91.6 : 88. Mich. : 77.8 : 75.5 : 91.6 : 88. Misc. : 69.7 : 70.3 : 87.1 : 76. Minn. : 74.6 : 78.8 : 93.4 : 85. Iswa : 70.7 : 75.5 : 80.9 : 74. Mo. : 69.6 : 74.8 : 75.7 : 67. N. Dak. : 67.2 : 63.7 : 75.1 : 65. S. Dak. : 61.0 : 62.1 : 71.8 : 53. Nebr. : 61.3 : 57.1 : 76.7 : 56. Kans. : 67.9 : 68.0 : 82.4 : 66. Del. : 78.6 : 75.9 : 83.8 : 75. Md. : 76.9 : 73.2 : 94.6 : 82.4 Va. : 70.9 : 72.9 : 89.8 : 72. N. Va. : 71.4 : 67.4 : 89.0 : 64. N. C. : 68.4 : 68.3 : 95.9 : 108. Ga. : 69.0 : 71.4 : 89.2 : 76. Fla. : 72.8 : 76.7 : 94.6 : 88. Ky. : 73.7 : 73.9 : 82.9 : 85. Tenn. : 74.0 : 70.6 : 66.1 : 77. Ala. : 72.9 : 70.0 : 75.5 : 73. Miss. : 66.6 : 66.4 : 80.2 : 78. Ark. : 68.6 : 67.3 : 75.7 : 75.7 : 77. La. : 61.6 : 70.6 : 91.6 : 78. Mont. : 69.8 : 68.0 : 93.2 : 75. Idaho : 74.7 : 74.7 : 93.6 : 80. N. Max. : 74.8 : 70.3 : 94.1 : 90.0 N. Max. : 74.8 : 70.3 : 94.1 : 90.0 N. Max. : 74.8 : 70.3 : 94.1 : 90.0 N. Max. : 78.3 : 76.9 : 111.1 : 70. Ariz. : 79.6 : 79.4 : 97.7 : 85. Utah : 73.6 : 79.4 : 97.7 : 85. Utah : 73.6 : 79.4 : 97.7 : 85. Utah : 75.6 : 79.4 : 85.3 : 72.			•				•	75.2
Pa. : 73.1 : 73.2 : 79.9 : 78. Ohio : 74.9 : 75.2 : 88.5 : 86. Ind. : 78.7 : 75.0 : 86.9 : 86. Ill. : 77.1 : 78.6 : 75.1 : 86. Mich. : 77.8 : 75.5 : 91.6 : 88. Mich. : 77.8 : 75.5 : 91.6 : 88. Misc. : 69.7 : 70.3 : 87.1 : 76. Minn. : 74.6 : 78.8 : 93.4 : 85. Iewa : 70.7 : 75.5 : 80.9 : 74. Mo. : 69.6 : 74.8 : 75.7 : 67. N. Dak. : 67.2 : 63.7 : 75.1 : 65. S. Dak. : 61.0 : 62.1 : 71.8 : 53. Nebr. : 61.3 : 57.1 : 76.7 : 56. Kens. : 67.9 : 68.0 : 82.4 : 66. Del. : 78.6 : 75.9 : 83.8 : 75. Md. : 76.9 : 73.2 : 94.6 : 82. Va. : 70.9 : 72.9 : 89.8 : 72. N. Va. : 71.4 : 67.4 : 89.0 : 64. N. C. : 68.4 : 68.3 : 95.9 : 108. S. C. : 68.2 : 69.1 : 97.1 : 83. Ga. : 69.0 : 71.4 : 89.2 : 76. Fla. : 72.8 : 76.7 : 94.6 : 88. Ky. : 73.7 : 73.9 : 82.9 : 85. Fenn. : 74.0 : 70.6 : 86.1 : 77. Ala. : 72.9 : 70.0 : 75.5 : 73. Miss. : 66.6 : 66.4 : 80.2 : 78. Ark. : 68.6 : 67.3 : 75.7 : 77. La. : 61.6 : 70.6 : 91.6 : 78. Mont. : 69.8 : 68.0 : 93.2 : 75. Idaho : 74.7 : 74.7 : 93.6 : 80. N. Mont. : 69.8 : 68.0 : 93.2 : 75. Idaho : 74.7 : 74.7 : 93.6 : 80. N. Mont. : 69.8 : 68.0 : 93.2 : 75. Idaho : 74.8 : 70.3 : 94.1 : 80.0 N. Mox. : 78.3 : 76.9 : 111.1 : 70. Ariz. : 79.6 : 79.4 : 97.7 : 85. Nov. : 76.7 : 78.6 : 103.9 : 84. Wesh. : 75.6 : 79.4 : 85.3 : 72.					•		•	
Ohio       : 74.9       : 75.2       : 88.5       : 86.         Ind.       : 78.7       : 75.0       : 86.9       : 86.         Iill.       : 77.1       : 78.6       : 75.1       : 88.         Mich.       : 77.8       : 75.5       : 91.6       : 88.         Mich.       : 77.8       : 75.5       : 91.6       : 88.         Minn.       : 74.6       : 78.8       : 93.4       : 85.         Iswa       : 70.7       : 75.5       : 80.9       : 74.         Mo.       : 69.6       : 74.8       : 75.7       : 67.         N. Dak.       : 67.2       : 63.7       : 75.1       : 65.         S. Dak.       : 61.0       : 62.1       : 71.8       : 53.         Nebr.       : 61.3       : 57.1       : 76.7       : 56.         Kens.       : 67.9       : 68.0       : 82.4       : 66.         Dol.       : 78.6       : 75.9       : 83.8       : 75.         Md.       : 76.9       : 73.2       : 94.6       : 82.         ya.       : 70.9       : 72.9       : 89.8       : 72.         W. Va.       : 71.4       : 67.4       : 89.0       : 64. <tr< td=""><td></td><td></td><td>Ť</td><td></td><td>•</td><td></td><td></td><td></td></tr<>			Ť		•			
Ind.	•							
111.	•		•					
Mich. : 77.8 : 75.5 : 91.6 : 88.  Misc. : 69.7 : 70.3 : 87.1 : 76.  Minn. : 74.6 : 78.8 : 93.4 : 85.  Iewa : 70.7 : 75.5 : 80.9 : 74.  Mo. : 69.6 : 74.8 : 75.7 : 67.  N. Dak. : 67.2 : 63.7 : 75.1 : 66.  S. Dak. : 61.0 : 62.1 : 71.8 : 53.  Nebr. : 61.3 : 57.1 : 76.7 : 56.  Kans. : 67.9 : 68.0 : 82.4 : 66.  Del. : 78.6 : 75.9 : 83.8 : 75.  Wa. : 70.9 : 72.9 : 89.8 : 72.  N. Va. : 70.9 : 72.9 : 89.8 : 72.  N. Va. : 71.4 : 67.4 : 89.0 : 64.  S. C. : 68.4 : 68.3 : 95.9 : 108.  Ga. : 69.0 : 71.4 : 89.2 : 76.  Fla. : 72.8 : 76.7 : 94.6 : 88.  Ky. : 73.7 : 73.9 : 82.9 : 85.  Miss. : 66.6 : 66.4 : 80.2 : 78.  Miss. : 66.6 : 66.4 : 80.2 : 78.  Miss. : 66.6 : 66.4 : 80.2 : 78.  Miss. : 66.6 : 66.4 : 80.2 : 78.  Miss. : 66.6 : 67.3 : 75.7 : 77.  Lo. : 61.6 : 70.6 : 86.1 : 77.  Lo. : 61.6 : 70.6 : 93.2 : 79.4 : 84.  Mont. : 69.8 : 68.0 : 93.2 : 75.  Miss. : 66.6 : 66.4 : 80.2 : 78.  Mont. : 69.8 : 68.0 : 93.2 : 75.  Miss. : 66.6 : 77.5 : 73.3 : 64.  Mont. : 69.8 : 68.0 : 93.2 : 75.  Miss. : 73.6 : 74.1 : 91.6 : 84.  Mont. : 69.8 : 68.0 : 93.2 : 75.  Juhh : 73.6 : 74.7 : 93.6 : 80.  N. Mex. : 73.6 : 74.7 : 93.6 : 80.  N. Mex. : 73.6 : 74.7 : 93.6 : 80.  N. Mex. : 78.3 : 76.9 : 111.1 : 70.  Miss. : 79.6 : 79.4 : 97.7 : 85.  Nov. : 76.7 : 78.6 : 103.9 : 84.  Wash. : 75.6 : 79.4 : 85.3 : 72.	:		*				_	
Misc. : 69.7 : 70.3 : 87.1 : 76.  Minn. : 74.6 : 78.8 : 93.4 : 85.  Iowa : 70.7 : 75.5 : 80.9 : 74.  Mo. : 69.6 : 74.8 : 75.7 : 67.  N. Dak. : 67.2 : 63.7 : 75.1 : 65.  S. Dak. : 61.0 : 62.1 : 71.8 : 53.  Nebr. : 61.3 : 57.1 : 76.7 : 56.  Del. : 76.6 : 75.9 : 83.8 : 75.  Md. : 76.9 : 73.2 : 94.6 : 82.  Va. : 70.9 : 72.9 : 89.8 : 72.  N. Va. : 71.4 : 67.4 : 89.0 : 64.  S. C. : 68.4 : 68.3 : 95.9 : 108.  Ga. : 69.0 : 71.4 : 89.2 : 76.  File. : 72.8 : 76.7 : 94.6 : 88.  Tenn. : 74.0 : 70.6 : 86.1 : 77.  Ala. : 72.9 : 70.0 : 75.5 : 73.  Miss. : 66.6 : 66.4 : 80.2 : 78.  Miss. : 66.6 : 66.4 : 80.2 : 78.  Miss. : 66.6 : 67.3 : 75.7 : 77.  Ala. : 72.9 : 70.0 : 75.5 : 73.  Miss. : 66.6 : 66.4 : 80.2 : 78.  Ala. : 72.9 : 70.0 : 75.5 : 73.  Miss. : 66.6 : 77.5 : 73.3 : 64.  Tex. : 68.6 : 77.5 : 73.3 : 64.  Tex. : 73.6 : 74.1 : 91.6 : 84.  Mont. : 69.8 : 66.0 : 93.2 : 75.  Tex. : 73.6 : 74.1 : 91.6 : 84.  Mont. : 69.8 : 68.0 : 93.2 : 75.  Vyo. : 71.2 : 73.9 : 91.1 : 92.  Colo. : 74.8 : 70.3 : 94.1 : 80.  N. Mex. : 78.3 : 76.9 : 111.1 : 70.  Ala. : 79.6 : 74.7 : 74.7 : 93.6 : 80.  N. Mex. : 78.3 : 76.9 : 111.1 : 70.  Ala. : 73.6 : 93.9 : 89.6 : 68.  N. Mex. : 78.3 : 76.9 : 111.1 : 70.  Ala. : 73.6 : 93.9 : 89.6 : 68.  Nov. : 76.7 : 78.6 : 103.9 : 84.  Wash. : 75.6 : 79.4 : 85.3 : 72.	:		:					
Minn.			:		-		•	
No.   16   16   17   17   17   17   17   17			:				•	
Mo.	:		:				:	
N. Dak. : 67.2 : 63.7 : 75.1 : 65. S. Dak. : 61.0 : 62.1 : 71.8 : 53. Nebr. : 61.3 : 57.1 : 76.7 : 56. Kans. : 67.9 : 68.0 : 82.4 : 66. Del. : 78.6 : 75.9 : 83.8 : 75. Md. : 76.9 : 73.2 : 94.6 : 82. Va. : 70.9 : 72.9 : 89.8 : 72. N. Va. : 71.4 : 67.4 : 89.0 : 64. N. C. : 68.4 : 68.3 : 95.9 : 108. S. C. : 68.2 : 69.1 : 97.1 : 83. Ga. : 69.0 : 71.4 : 89.2 : 76. Fla. : 72.8 : 76.7 : 94.6 : 88. Ky. : 73.7 : 73.9 : 82.9 : 85. Fenn. : 74.0 : 70.6 : 86.1 : 77. Ala. : 72.9 : 70.0 : 75.5 : 73. Miss. : 66.6 : 66.4 : 80.2 : 78. Miss. : 66.6 : 66.4 : 80.2 : 78. Miss. : 66.6 : 66.4 : 80.2 : 78. Miss. : 66.6 : 67.3 : 75.7 : 77. La. : 61.6 : 70.6 : 91.6 : 78. Dkla. : 75.6 : 77.5 : 73.9 : 92.2 : 75. Idaho : 74.7 : 74.7 : 93.6 : 84. Mont. : 69.8 : 68.0 : 93.2 : 75. Idaho : 74.7 : 74.7 : 93.6 : 84. Mont. : 69.8 : 68.0 : 93.2 : 75. Idaho : 74.7 : 74.7 : 93.6 : 80. Nyo. : 71.2 : 73.9 : 91.1 : 92. Colo. : 74.8 : 70.3 : 94.1 : 80. N. Mex. : 78.3 : 76.9 : 111.1 : 70. Ariz. : 79.6 : 79.4 : 97.7 : 85. Utah : 73.6 : 93.9 : 91.1 : 70. Wash. : 75.6 : 79.4 : 85.3 : 72.	:		-		:		:	
S. Dak. : 61.0 : 62.1 : 71.8 : 53.  Nebr. : 61.3 : 57.1 : 76.7 : 56.  Kens. : 67.9 : 68.0 : 82.4 : 66.  Del. : 78.6 : 75.9 : 83.8 : 75.  Md. : 76.9 : 73.2 : 94.6 : 82.  Md. : 70.9 : 72.9 : 89.8 : 72.  M. Va. : 71.4 : 67.4 : 89.0 : 64.  M. C. : 68.4 : 68.3 : 95.9 : 108.  G. C. : 68.2 : 69.1 : 97.1 : 83.  G. : 69.0 : 71.4 : 89.2 : 76.  Fla. : 72.8 : 76.7 : 94.6 : 88.  Ky. : 73.7 : 73.9 : 82.9 : 85.  Fenn. : 74.0 : 70.6 : 86.1 : 77.  Ala. : 72.9 : 70.0 : 75.5 : 73.  Miss. : 66.6 : 66.4 : 80.2 : 78.  Ark. : 68.6 : 67.3 : 75.7 : 77.  Del. : 75.6 : 77.5 : 73.3 : 64.  Mont. : 69.8 : 68.0 : 93.2 : 75.  Idaho : 74.7 : 74.7 : 93.6 : 84.  Mont. : 69.8 : 68.0 : 93.2 : 75.  Idaho : 74.7 : 74.7 : 93.6 : 84.  Mont. : 69.8 : 68.0 : 93.2 : 75.  Idaho : 74.7 : 74.7 : 93.6 : 80.  Myo. : 71.2 : 73.9 : 91.1 : 92.  Colo. : 74.8 : 70.3 : 94.1 : 80.  Mixs. : 78.3 : 76.9 : 111.1 : 70.  Mixs. : 79.6 : 79.4 : 97.7 : 85.  Jtah : 73.6 : 93.9 : 89.6 : 68.  Mov. : 76.7 : 78.6 : 103.9 : 84.  Mash. : 75.6 : 79.4 : 85.3 : 72.	:		\$		:		:	
Nebr.       : 61.3       : 57.1       : 76.7       : 56.         Kans.       : 67.9       : 68.0       : 82.4       : 66.         Del.       : 78.6       : 75.9       : 83.8       : 75.         Md.       : 76.9       : 73.2       : 94.6       : 82.         Wa.       : 70.9       : 72.9       : 89.8       : 72.         Wa.       : 71.4       : 67.4       : 89.0       : 64.         N. C.       : 68.4       : 68.3       : 95.9       : 108.         S. C.       : 68.2       : 69.1       : 97.1       : 83.         Ga.       : 69.0       : 71.4       : 89.2       : 76.         Fla.       : 72.8       : 76.7       : 94.6       : 88.         Ky.       : 73.7       : 73.9       : 82.9       : 85.         Femn.       : 74.0       : 70.6       : 86.1       : 77.         Ala.       : 72.9       : 70.0       : 75.5       : 73.         Miss.       : 66.6       : 66.4       : 80.2       : 78.         Ark.       : 68.6       : 67.3       : 75.7       : 77.         La.       : 61.6       : 70.6       : 91.6       : 78. <t< td=""><td></td><td></td><td>:</td><td></td><td>•</td><td></td><td></td><td></td></t<>			:		•			
Gans.       : 67.9       : 68.0       : 82.4       : 66.         Del.       : 78.6       : 75.9       : 83.8       : 75.         Md.       : 76.9       : 73.2       : 94.6       : 82.         Va.       : 70.9       : 72.9       : 89.8       : 72.         N. Va.       : 71.4       : 67.4       : 89.0       : 64.         N. C.       : 68.4       : 68.3       : 95.9       : 108.         S. C.       : 68.2       : 69.1       : 97.1       : 83.         Ga.       : 69.0       : 71.4       : 89.2       : 76.         Fla.       : 72.8       : 76.7       : 94.6       : 88.         Ky.       : 73.7       : 73.9       : 82.9       : 85.         Flem.       : 74.0       : 70.6       : 86.1       : 77.         Ala.       : 72.9       : 70.0       : 75.5       : 73.         Miss.       : 66.6       : 66.6       : 67.3       : 75.7       : 77.         La.       : 61.6       : 70.6       : 91.6       : 78.         Obla.       : 75.6       : 77.5       : 73.3       : 64.         Mont.       : 69.8       : 68.0       : 93.2       : 75.			:				-	
Oel.       : 78.6       : 75.9       : 83.8       : 75.         Md.       : 76.9       : 73.2       : 94.6       : 82.         Va.       : 70.9       : 72.9       : 89.8       : 72.         N. Va.       : 71.4       : 67.4       : 89.0       : 64.         N. C.       : 68.4       : 68.3       : 95.9       : 108.         S. C.       : 68.2       : 69.1       : 97.1       : 83.         Ga.       : 69.0       : 71.4       : 89.2       : 76.         Fla.       : 72.8       : 76.7       : 94.6       : 88.         Ky.       : 73.7       : 73.9       : 82.9       : 85.         Fem.       : 74.0       : 70.6       : 86.1       : 77.         Ala.       : 72.9       : 70.0       : 75.5       : 73.         Miss.       : 66.6       : 66.4       : 80.2       : 78.         Ark.       : 68.6       : 67.3       : 75.7       : 77.         La.       : 61.6       : 70.6       : 91.6       : 78.         Okla.       : 73.6       : 74.1       : 91.6       : 84.         Wohla.       : 69.8       : 68.0       : 93.2       : 75.			:				-	56.3
Md. : 76.9 : 73.2 : 94.6 : 82.  Va. : 70.9 : 72.9 : 89.8 : 72.  N. Va. : 71.4 : 67.4 : 89.0 : 64.  N. C. : 68.4 : 68.3 : 95.9 : 108.  S. C. : 68.2 : 69.1 : 97.1 : 83.  Ga. : 69.0 : 71.4 : 89.2 : 76.  Fla. : 72.8 : 76.7 : 94.6 : 88.  Ky. : 73.7 : 73.9 : 82.9 : 85.  Fenn. : 74.0 : 70.6 : 86.1 : 77.  Ala. : 72.9 : 70.0 : 75.5 : 73.  Miss. : 66.6 : 66.4 : 80.2 : 78.  Ark. : 68.6 : 67.3 : 75.7 : 77.  La. : 61.6 : 70.6 : 91.6 : 78.  Okla. : 75.6 : 77.5 : 73.3 : 64.  Fex. : 73.6 : 74.1 : 91.6 : 84.  Mont. : 69.8 : 68.0 : 93.2 : 75.  Idaho : 74.7 : 74.7 : 93.6 : 80.  Nyo. : 71.2 : 73.9 : 91.1 : 92.  Vol. : 74.8 : 70.3 : 94.1 : 82.  Vol. : 74.8 : 70.3 : 94.1 : 92.  Vol. : 74.8 : 70.3 : 94.1 : 92.  Vol. : 74.8 : 70.3 : 94.1 : 92.  Vol. : 74.8 : 70.3 : 94.1 : 92.  Vol. : 74.8 : 70.3 : 94.1 : 92.  Vol. : 74.8 : 70.3 : 94.1 : 92.  Vol. : 74.8 : 70.3 : 94.1 : 92.  Vol. : 74.8 : 70.3 : 94.1 : 92.  Vol. : 74.8 : 70.3 : 94.1 : 92.  Vol. : 74.8 : 70.3 : 94.1 : 92.  Vol. : 74.8 : 70.3 : 94.1 : 92.  Vol. : 74.8 : 70.3 : 94.1 : 92.  Vol. : 74.8 : 70.3 : 94.1 : 92.  Vol. : 74.8 : 70.3 : 94.1 : 92.  Vol. : 74.8 : 70.3 : 94.1 : 92.  Vol. : 74.8 : 70.3 : 94.1 : 92.  Vol. : 74.8 : 75.6 : 79.4 : 97.7 : 85.  Vash. : 75.6 : 79.4 : 85.3 : 72.	:		:		:		:	66.5
Va.       : 70.9       : 72.9       : 89.8       : 72.         N. Va.       : 71.4       : 67.4       : 89.0       : 64.         N. C.       : 68.4       : 68.3       : 95.9       : 108.         S. C.       : 68.2       : 69.1       : 97.1       : 83.         Ga.       : 69.0       : 71.4       : 89.2       : 76.         Fla.       : 72.8       : 76.7       : 94.6       : 88.         Ky.       : 73.7       : 73.9       : 82.9       : 85.         Fenn.       : 74.0       : 70.6       : 86.1       : 77.         Ala.       : 72.9       : 70.0       : 75.5       : 73.         Miss.       : 66.6       : 66.4       : 80.2       : 78.         Ark.       : 68.6       : 67.3       : 75.7       : 77.         La.       : 61.6       : 70.6       : 91.6       : 78.         La.       : 61.6       : 70.5       : 73.3       : 64.         I.a.       : 75.6       : 77.5       : 73.3       : 64.         Mont.       : 69.8       : 68.0       : 93.2       : 75.         Mont.       : 69.8       : 68.0       : 93.2       : 75.	:		:		:		:	75.1
N. Va.	:		:		:		:	82.3
N. C.	:		:		:		:	72.7
S. C. : 68.2 : 69.1 : 97.1 : 83.  Ga. : 69.0 : 71.4 : 89.2 : 76.  Fla. : 72.8 : 76.7 : 94.6 : 88.  Ky. : 73.7 : 73.9 : 82.9 : 85.  Tenn. : 74.0 : 70.6 : 86.1 : 77.  Ala. : 72.9 : 70.0 : 75.5 : 73.  Miss. : 66.6 : 66.4 : 80.2 : 78.  Ark. : 68.6 : 67.3 : 75.7 : 77.  La. : 61.6 : 70.6 : 91.6 : 78.  Okla. : 75.6 : 77.5 : 73.3 : 64.  Tex. : 73.6 : 74.1 : 91.6 : 84.  Mont. : 69.8 : 68.0 : 93.2 : 75.  Idaho : 74.7 : 74.7 : 93.6 : 80.  Wyo. : 71.2 : 73.9 : 91.1 : 92.  Colo. : 74.8 : 70.3 : 94.1 : 80.  N. Mex. : 78.3 : 76.9 : 111.1 : 70.  Ariz. : 79.6 : 79.4 : 97.7 : 85.  Utah : 73.6 : 93.9 : 89.6 : 68.  Nev. : 76.7 : 78.6 : 103.9 : 84.  Wash. : 75.6 : 79.4 : 85.3 : 72.			:		:		:	64.1
Ga. 69.0 : 71.4 : 89.2 : 76.7 Fla. 72.8 : 76.7 : 94.6 : 88.	:		:		:		:	108.8
Fla. : 72.8 : 76.7 : 94.6 : 88.  Ky. : 73.7 : 73.9 : 82.9 : 85.  Tenn. : 74.0 : 70.6 : 86.1 : 77.  Ala. : 72.9 : 70.0 : 75.5 : 73.  Miss. : 66.6 : 66.4 : 80.2 : 78.  Ark. : 68.6 : 67.3 : 75.7 : 77.  La. : 61.6 : 70.6 : 91.6 : 78.  Okla. : 75.6 : 77.5 : 73.3 : 64.  Tex. : 73.6 : 74.1 : 91.6 : 84.  Mont. : 69.8 : 68.0 : 93.2 : 75.  Idaho : 74.7 : 74.7 : 93.6 : 80.  Wyo. : 71.2 : 73.9 : 91.1 : 92.  Colo. : 74.8 : 70.3 : 94.1 : 80.  Ariz. : 79.6 : 79.4 : 97.7 : 85.  Utah : 73.6 : 79.4 : 97.7 : 85.  Wash. : 75.6 : 79.4 : 85.3 : 72.  Wash. : 75.6 : 79.4 : 85.3 : 72.	:		:		:		:	83.4
Ky.       73.7       73.9       82.9       85.         Tenn.       74.0       70.6       86.1       77.         Ala.       72.9       70.0       75.5       73.         Miss.       66.6       66.4       80.2       78.         Ark.       68.6       67.3       75.7       77.         La.       61.6       70.6       91.6       78.         Okla.       75.6       77.5       73.3       64.         Tex.       73.6       74.1       91.6       84.         Mont.       69.8       68.0       93.2       75.         Idaho       74.7       74.7       93.6       80.         Wyo.       71.2       73.9       91.1       92.         Colo.       74.8       70.3       94.1       80.         N. Mex.       78.3       76.9       111.1       70.         Ariz.       79.6       79.4       97.7       85.         Utah       73.6       93.9       89.6       68.         Nev.       76.7       78.6       103.9       84.         Wash.       75.6       79.4       85.3       72. <td>:</td> <td>69.0</td> <td>:</td> <td>71.4</td> <td>:</td> <td>89.2</td> <td>:</td> <td>76.9</td>	:	69.0	:	71.4	:	89.2	:	76.9
Tenn.	:	72.8	:	76.7	:	94.6	:	88.1
Tenn. : 74.0 : 70.6 : 86.1 : 77. Ala. : 72.9 : 70.0 : 75.5 : 73. Miss. : 66.6 : 66.4 : 80.2 : 78. Ark. : 68.6 : 67.3 : 75.7 : 77. La. : 61.6 : 70.6 : 91.6 : 78. Okla. : 75.6 : 77.5 : 73.3 : 64. Okla. : 75.6 : 77.5 : 73.3 : 64. Mont. : 69.8 : 68.0 : 93.2 : 75. Idaho : 74.7 : 74.7 : 93.6 : 80. Wyo. : 71.2 : 73.9 : 91.1 : 92. Colo. : 74.8 : 70.3 : 94.1 : 80. N. Mex. : 78.3 : 76.9 : 111.1 : 70. Ariz. : 79.6 : 79.4 : 97.7 : 85. Utah : 73.6 : 93.9 : 89.6 : 68. Nev. : 76.7 : 78.6 : 103.9 : 84. Wash. : 75.6 : 79.4 : 85.3 : 72. Wash. : 75.6 : 79.4 : 85.3 : 72.	:	73.7	:	73.9	*	82.9	:	85.4
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Miss. : 66.6 : 66.4 : 80.2 : 78.  Ark. : 68.6 : 67.3 : 75.7 : 77.  La. : 61.6 : 70.6 : 91.6 : 78.  Okla. : 75.6 : 77.5 : 73.3 : 64.  Tex. : 73.6 : 74.1 : 91.6 : 84.  Mont. : 69.8 : 68.0 : 93.2 : 75.  Idaho : 74.7 : 74.7 : 93.6 : 80.  Wyo. : 71.2 : 73.9 : 91.1 : 92.  Colo. : 74.8 : 70.3 : 94.1 : 80.  N. Mex. : 78.3 : 76.9 : 111.1 : 70.  Ariz. : 79.6 : 79.4 : 97.7 : 85.  Utah : 73.6 : 93.9 : 89.6 : 68.  Nev. : 76.7 : 78.6 : 103.9 : 84.  Wash. : 75.6 : 79.4 : 85.3 : 72.	:	72.9	:	70.0	:	75.5	:	73.5
Ark. : 68.6 : 67.3 : 75.7 : 77.  La. : 61.6 : 70.6 : 91.6 : 78.  Okla. : 75.6 : 77.5 : 73.3 : 64.  Tex. : 73.6 : 74.1 : 91.6 : 84.  Mont. : 69.8 : 68.0 : 93.2 : 75.  Idaho : 74.7 : 74.7 : 93.6 : 80.  Myo. : 71.2 : 73.9 : 91.1 : 92.  Colo. : 74.8 : 70.3 : 94.1 : 80.  N. Mex. : 78.3 : 76.9 : 111.1 : 70.  Ariz. : 79.6 : 79.4 : 97.7 : 85.  Utah : 73.6 : 93.9 : 89.6 : 68.  Nev. : 76.7 : 78.6 : 103.9 : 84.  Wash. : 75.6 : 79.4 : 85.3 : 72.	:	66.6	:	66.4	:	80.2	:	78.9
La. : 61.6 : 70.6 : 91.6 : 78.0kla. : 75.6 : 77.5 : 73.3 : 64.0kla. : 75.6 : 77.5 : 73.3 : 64.0kla. : 73.6 : 74.1 : 91.6 : 84.0kla. : 69.8 : 68.0 : 93.2 : 75.0kla. : 74.7 : 93.6 : 80.0kla. : 74.7 : 93.6 : 80.0kla. : 74.7 : 93.6 : 80.0kla. : 74.8 : 70.3 : 94.1 : 92.0kla. : 74.8 : 70.3 : 94.1 : 80.0kla. : 78.3 : 76.9 : 111.1 : 70.0kla. : 78.3 : 76.9 : 111.1 : 70.0kla. : 79.6 : 79.4 : 97.7 : 85.0kla. : 79.6 : 79.4 : 97.7 : 85.0kla. : 75.6 : 79.4 : 85.3 : 72.0kla. : 75.0kla. : 75.0kla			:	67.3	:	75.7	:	77.9
Okla.       75.6       77.5       73.3       64.         Iex.       73.6       74.1       91.6       84.         Mont.       69.8       68.0       93.2       75.         Idaho       74.7       74.7       93.6       80.         Nyo.       71.2       73.9       91.1       92.         Colo.       74.8       70.3       94.1       80.         N. Mex.       78.3       76.9       111.1       70.         Ariz.       79.6       79.4       97.7       85.         Utah       73.6       93.9       89.6       68.         Nev.       76.7       78.6       103.9       84.         Wash.       75.6       79.4       85.3       72.	:		:	70.6	:	91.6	:	78.9
Tex.       73.6       74.1       91.6       84.         Mont.       69.8       68.0       93.2       75.         Idaho       74.7       74.7       93.6       80.         Nyo.       71.2       73.9       91.1       92.         Colo.       74.8       70.3       94.1       80.         N. Mex.       78.3       76.9       111.1       70.         Ariz.       79.6       79.4       97.7       85.         Jtah       73.6       93.9       89.6       68.         Nev.       76.7       78.6       103.9       84.         Wash.       75.6       79.4       85.3       72.	:		:				:	64.6
Mont.       69.8       68.0       93.2       75.         Idaho       74.7       74.7       93.6       80.         Nyo.       71.2       73.9       91.1       92.         Colo.       74.8       70.3       94.1       80.         N. Mex.       78.3       76.9       111.1       70.         Ariz.       79.6       79.4       97.7       85.         Utah       73.6       93.9       89.6       68.         Nev.       76.7       78.6       103.9       84.         Wash.       75.6       79.4       85.3       72.			:		:		:	84.3
Idaho       74.7       74.7       93.6       80.         Nyo.       71.2       73.9       91.1       92.         Colo.       74.8       70.3       94.1       80.         N. Mex.       78.3       76.9       111.1       70.         Ariz.       79.6       79.4       97.7       85.         Utah       73.6       93.9       89.6       68.         Nev.       76.7       78.6       103.9       84.         Wash.       75.6       79.4       85.3       72.			_				:	75.8
Wyo.       :       71.2       :       73.9       :       91.1       :       92.         Colo.       :       74.8       :       70.3       :       94.1       :       80.         N. Mex.       :       78.3       :       76.9       :       111.1       :       70.         Ariz.       :       79.6       :       79.4       :       97.7       :       85.         Utah       :       73.6       :       93.9       :       89.6       :       68.         Nev.       :       76.7       :       78.6       :       103.9       :       84.         Wash.       :       75.6       :       79.4       :       85.3       :       72.			-		•		_	80.0
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Ariz. : 79.6 : 79.4 : 97.7 : 85. Utah : 73.6 : 93.9 : 89.6 : 68. Nev. : 76.7 : 78.6 : 103.9 : 84. Wash. : 75.6 : 79.4 : 85.3 : 72.								70.5
Utah       : 73.6       : 93.9       : 89.6       : 68.         Nev.       : 76.7       : 78.6       : 103.9       : 84.         Wash.       : 75.6       : 79.4       : 85.3       : 72.					-			85.5
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Ure. : /1.9 : 80.5 : 88.5 : 78.	:		-		-			
	:		-		_		_	76.2 87.6

Table 3-C. Farm Wage Rates Without Board, Per Month and Per Day,
Per Capita Total Income, and Per Capita Farm Income (Cash)
1939 as percent of 1929

	:	FARM WAGE RATES			PER CAPITA INCOME		
	: P	er Month	:	Per Day	:	Total	: Cash Farm
U. S.	:	70.6		69.8		79.2	71.5
7.f	:	69.7		70.2		81.3	65.8
Me.	•	73.2		84.5		79.9	59.6
N. H.				72.0		75.4	72.3
Vt.		65.9		77.9		81.4	72.7
R. I.	:	76.3				78.6	65.5
Mass.	:	76.5		75.0		78.8	51.2
Conn.	:	76.5		73.8		76.0	71.1
N. Y.	:	64.3		61.0		76.5	81.5
N. J.	:	73.2		69.4		73.2	72.6
Pa.	:	68.8		69.5		80.4	76.0
Ohio	:	75.3		69.3		82.0	80.6
Ind.	:	74.4		70.7			87.7
Ill.	:	78.2		78.6		70.7	97.2
Mich.	:	70.6		67.2		82.9	
Wis.	:	62.8		64.1		82.2	65.5
Minn.	:	68.6		74.3		92.3	81.8
Iowa	:	71.6		74.0		83.6	89.4
Mo.	:	69.8		67.9		73.5	69.8
N. Dak.	:	66.0		60.8		70.0	77.2
S. Dak.		62.0		59.8		75.0	66.1
Nebr.		61.2		56.5		72.7	54.2
Kans.		66.1		61.9		78.5	56.3
	•	69.6		69.0		76.0	65.1
Del.	•	76.6		69.7		90.1	71.0
Md.		71.5		72.9		88.0	65.3
Va.	•	67.7		65.2		81.7	56.6
W. Va.	•	64.9		66.7		93.0	90.0
N. C.	•			69.1		95.0	80.5
S. C.	:	69.1		67.7		87.8	67.7
Ga.	:	65.0				92.2	80.6
Fla.	:	74.3		76.7		79.3	68.6
Ky.	:	76.9		72.2			66.0
Tenn.	:	71.8		68.6		82.6	59.0
Ala.	:	68.9		64.3		72.8	
Miss.	:	63.1		60.1		79.9	71.6
Ark.	:	64.8		62.5		75.2	74.8
La.	:	58.7		70.6		92.2	81.1
Okla.	:	72.1		70.5		70.7	63.1
Texas	:	70.3		67.4		89.5	73.5
Mont.	:	71.6		70.6		83.3	85.5
Idaho	:	67.7		69.3		85.9	71.2
Wyo.	:	71.4		66.6		88.6	88.9
Colo.		71.4		69.3		88.9	73.7
N. Mex.		87.5		74.7		110.8	69.5
		79.4		77.6		94.3	76.3
Ariz. Utah		70.6		80.1		88.5	63.5
Nev.		69.0		71.5		96.8	78.6
Wash.		71.7		73.4		84.8	61.2
Ore.		73.6		75.2		85.4	64.5
Calif.		78.6		79.0		84.5	66.4



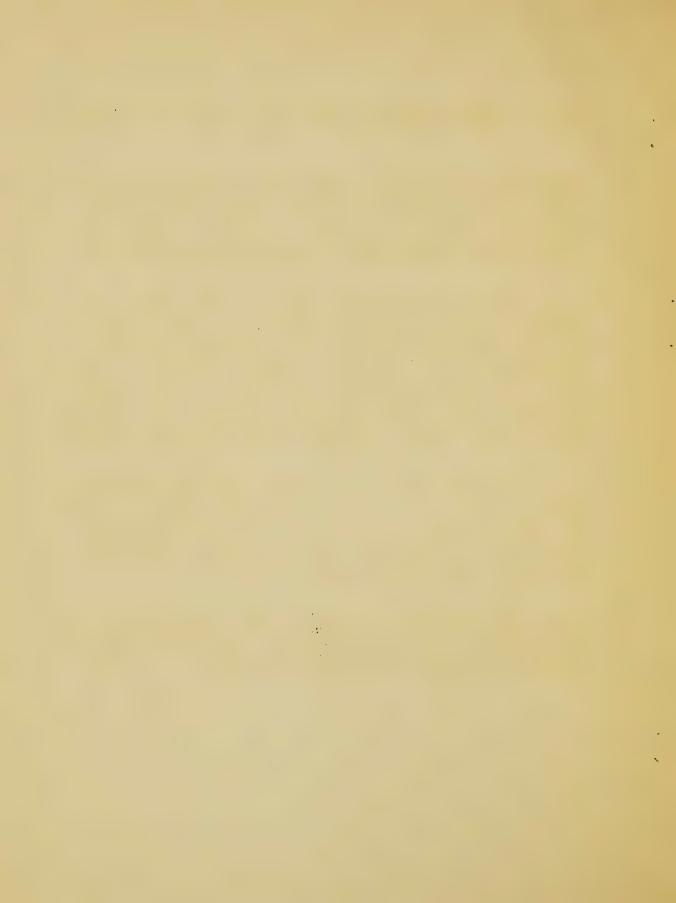
Chart 3. Working population in agriculture, percent of U. S. total gainful workers 10 years of age and over.

The fact of pressure of surplus labor in agriculture on farm wages that developed during the 1930's and still persists may be inferred from the fact that we now have a larger number of people of all ages and therefore of working age living on farms than in 1930 and the same proportion of the U. S. total as in 1930 in spite of the increased productivity per person and the reduction in the total number of persons estimated as actually employed.

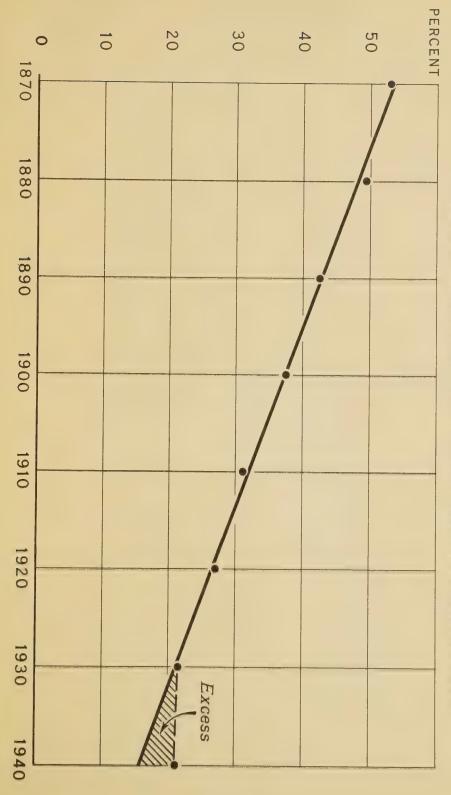
Contrary to the persistent long-time downward trend in the proportion of the total working population in agriculture, no reduction took place between 1930 and 1940. It is estimated that both the total farm population and the total farm working population increased during this decade about as much as the total U. S. population and the total U. S. working population respectively. On the basis of the long-time trend, with 21 percent of the total working population in agriculture in 1930, there should have been only about 16 percent in 1940 instead of the present proportion of 21 percent. This difference of about 5 percent in a total U. S. working population of about 54-55 million is equivalent to about 2-3/4 million persons.

This indirect evidence of a surplus farm working population may be contrasted with the findings in the 1937 Unemployment Census that total and partial unemployment in agriculture amounted to about 1,500,000 persons; and also with estimates already presented (by Dr. Lorimer and others) of an annual net increase of about 200,000 farm youths to the farm working population, and of an accumulation of an excess of 1,886,000 farm males and 2,166,000 farm females in the 15-64 age group during the 1930-40 decade.

Normally, surplus farm labor would tend to be absorbed in nonfarm occupations, but that avenue has been generally blocked by the prevalence of industrial unemployment. Pressure of surplus farm labor on farm wages can hardly be expected to be lifted as long as industrial unemployment continues in large volume.



# WORKING POPULATION IN AGRICULTURE, PERCENTAGE OF U.S. TOTAL, GAINFUL WORKERS 10 YEARS OF AGE AND OVER



U. S. DEPARTMENT OF AGRICULTURE

NEG. 38045

BUREAU OF AGRICULTURAL ECONOMICS



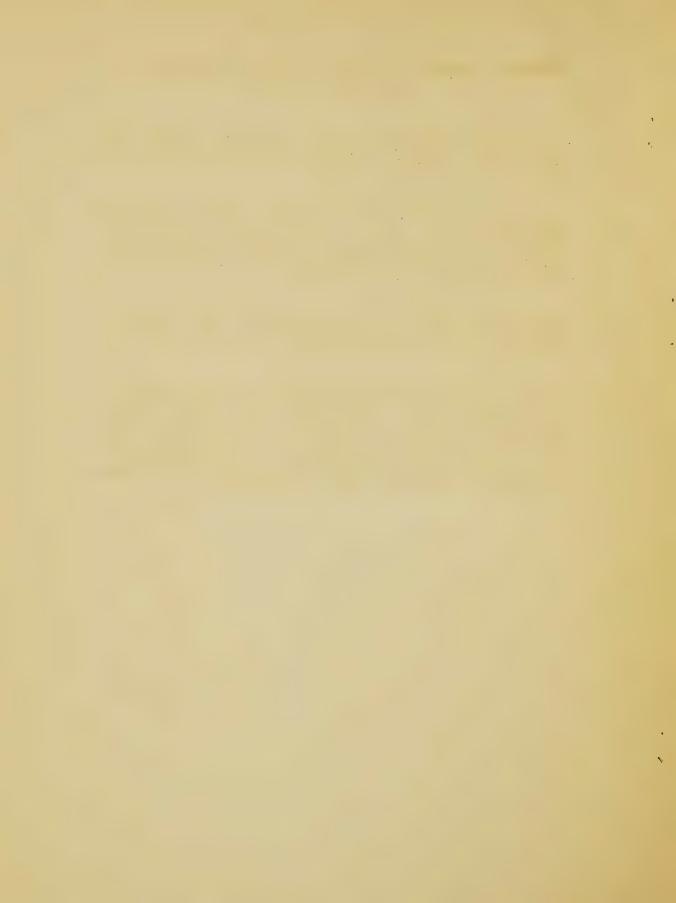
Chart 4. Industrial production, industrial employment and unemployment, 1919-40.

The pressure of industrial unemployment on farm wages can hardly be expected to disappear in the near future, unless the trends of industrial production and employment are immediately tilted markedly upward.

It is estimated that we now have a nonfarm working population of over 42 million, of whom less than 35 million are now employed. The balance, nearly 8 million persons, may be taken as one of several measures of nonfarm unemployment, including those on relief and those who even in prosperity years are for various reasons unemployed.

For full employment, such as we had in 1929 (when perhaps about 2 million were unemployed) we would have to have industrial production sustained at a level of at least 40 percent greater than the present volume.

If we could resume the same pace of recovery that we experienced during the period from the beginning of 1933 to the beginning of 1937, we could in the course of the next two or three years attain a level of industrial production 40 to 50 percent greater than the present level and perhaps restore the employment-unemployment balance that existed in 1929. But even that rate of recovery would not be adequate to absorb the growing surplus labor force in agriculture.



## INDUSTRIAL PRODUCTION AND INDUSTRIAL EMPLOYMENT AND UNEMPLOYMENT, UNITED STATES, 1919-40

(ADJUSTED FOR SEASONAL VARIATION)

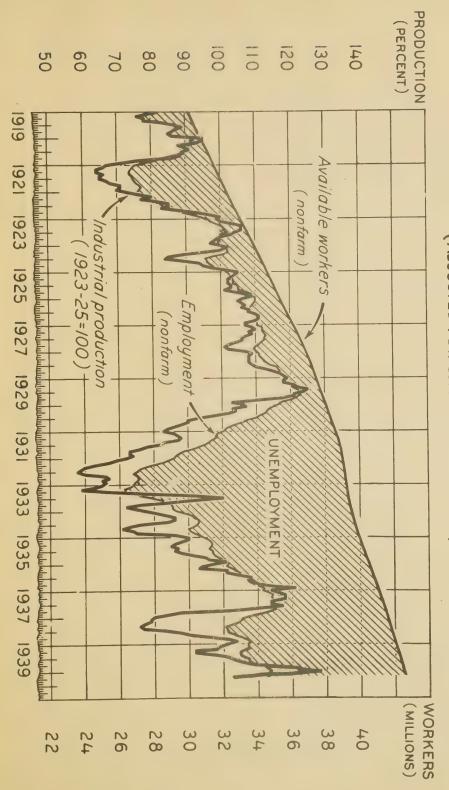




Table 4. The relation of the national income to cash wages paid to hired farm labor.

	National income payments billion dollars	Cash farm wages 1/ million dollars	Percent .
1910 1911 1912 1913 1914 1915 1916 1917 1918 1919 1920 1921 1922 1923 1924 1925 1926 1927 1928 1929 1930 1931 1932 1933 1934 1935 1936 1937 1938 1939	28.6 29.0 30.9 32.7 32.5 33.8 39.7 48.3 56.4 65.7 55.1 58.5 69.9 74.5 77.7 81.6 74.7 63.4 49.4 46.8 54.2 68.2 72.4 66.3 79.7	528 532 555 572 566 576 641 789 960 1099 1325 841 820 902 912 924 991 955 945 955 838 618 420 366 393 449 488 570 556 550	1.85 1.83 1.80 1.75 1.74 1.70 1.62 1.63 1.70 1.79 2.02 1.53 1.40 1.34 1.24 1.29 1.23 1.19 1.17 1.12 98 85 78 77 77 79 84

<sup>1/</sup> Exclusive of perquisites and supplementary income from nomfarm employment.

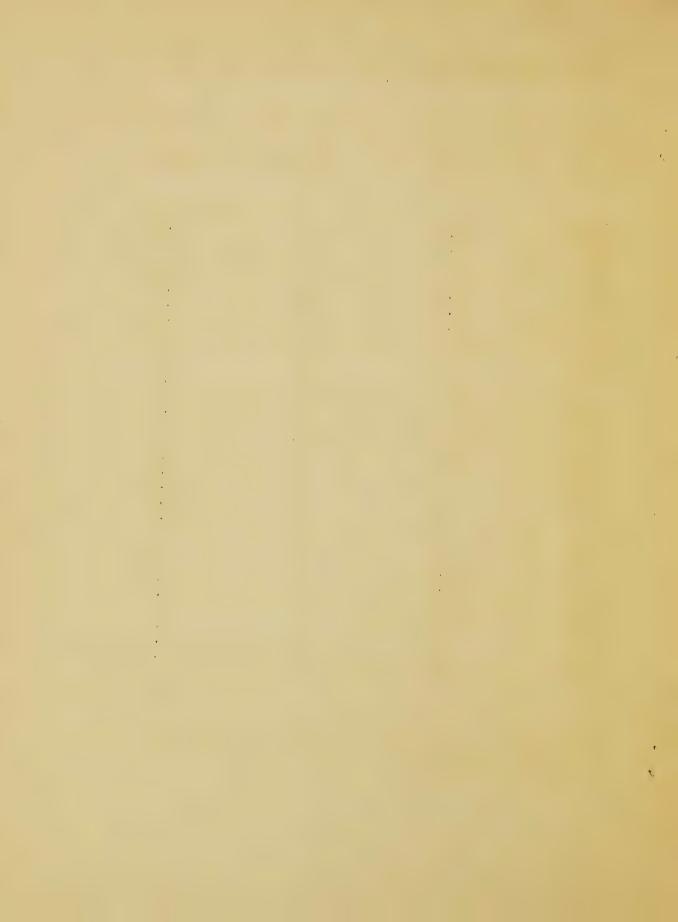


Table 4. The relation of the national income to cash wages paid to hired farm labor.

Such assumptions as may be made with regard to the prospective trend in industrial production may be translated into a probable total national income (farm and nonfarm) and the latter may be used as a basis for determining the probable amount of cash wages farmers would be likely to be in a position to pay to hired farm labor.

If industrial production could be restored to give full employment, it would probably be accompanied by a national income (payments received by all individuals) of 85 to 90 billion dollars, assuming the general level of prices remains unchanged. This would compare with a total of income payments of about 70 billion dollars in 1939, 82 billion in 1929, and 29 billion in 1910. Since full employment is not in prospect in the immediate future, it would be more pertinent to raise the question as to what money income from farm production would there be available to hired farm laborers say, in 1941, if the national income should rise in that year to 75 billion dollars?

Cash farm wages, just as cash farm income, has shown a declining share in the national income. This is due partly to the decline in the number of hired farm laborers but chiefly to the increase in the nonfarm population. In 1910 cash farm wages amounted to 1.85 percent of the total of national income payments to all individuals, and in 1915, 1.70 percent. The war altered this trend during 1917-20 but it resumed its gradual downward course during the postwar years. By 1929, in line with the long-time decline, cash farm wages to hired labor amounted to only 1.17 percent and by 1939 to .79 percent: By 1941, following this downward trend it would amount to about .75, and if the national income is about 75 billion dollars in that year the aggregate cash expenditures for farm labor would be about \$525,000,000 or about 5 percent less than the amount paid out in 1938 or 1939. If national income should reach 75 to 80 billion dollars in 1941, expenditures for farm labor might be about 5 percent greater than in 1938-39.

These relationships summarize the composite effect of industrial production, urban employment, nonfarm and farm income, industrial and farm wage rates or the money purchasing power of about 2.4 million hired farm workers—money purchasing power derived from farm production and exclusive of the value of perquisites or supplementary income from nonfarm employment. Even with a substantial increase in the national income to 75-80 billion dollars, their purchasing power under present conditions is not likely to be improved sufficiently to yield any real increase in their living standards.



This statement deals with the aggregate amount of money purchasing power received annually by hired farm laborers from employment on farms. This money income is exclusive of the value of perquisites and income from other sources. The variations in the annual cash expenditures by farmers for hired labor are shown to be dependent upon the amount of income derived by farm operators from farming and upon the earnings of the nonfarm population, the relative importance of these two basic factors apparently changing from time to time.

The total expenditures for farm labor are also shown in terms of changing numbers of hired persons and changing wage rates. The rates analyzed are the general rates regularly reported by the U. S. Department of Agriculture. They are shown to be related to the course of per capita farm and per capita nonfarm income and to agricultural and industrial unemployment.

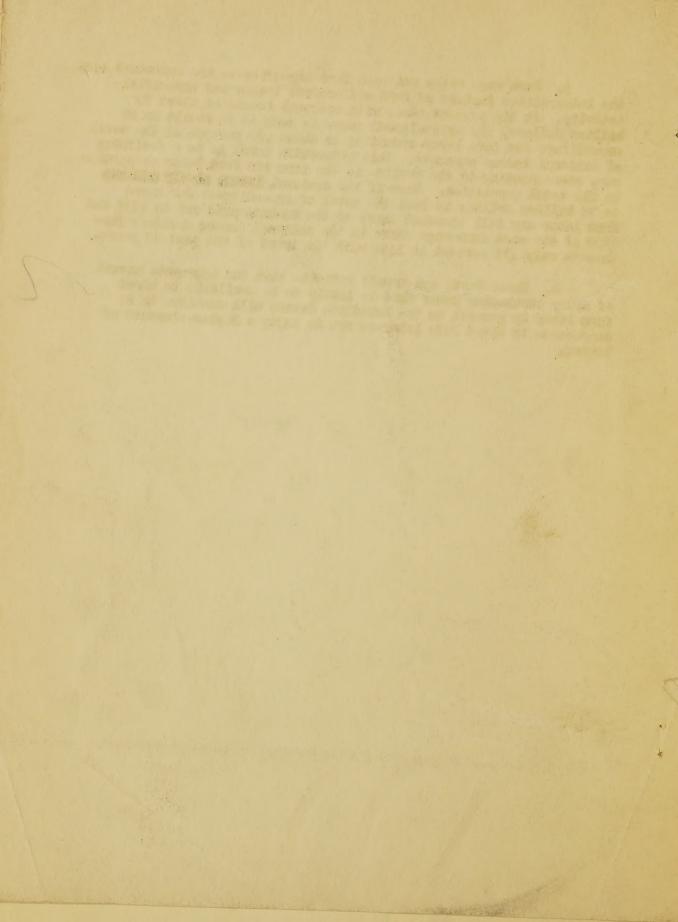
Some of the general conclusions are:

- 1. Farm wage rates since 1932 have not borne the same relation to farm and nonfarm income as they did throughout the period 1910-32. They seem to be at present at least 15 percent lower than the past relationship would suggest.
- 2. This discrepancy is apparently related to the prevalence of surplus labor in agriculture to unemployment in other industries, a lessened demand for farm labor due to a reduction in the size of the total farm enterprise, and to an increased number of acres and livestock that can be handled per worker.
- 3. The pressure of surplus farm labor and of industrial unemployment on farm wage rates is not likely to be lifted in the immediate future by ordinary developments. Even if 10 percent more acres and livestock were required, most of that additional output could be taken care of by the present number of hired workers, in view of increased productivity per worker. On the industrial side the prevalence of unemployment means a continuation of efforts on the part of nonfarm persons seeking economic refuge on the land.
- 4. As a result of a reduction in the number of hired farm hands, an increased use of mechanical equipment, and a lag in farm wage rates, the proportion of farm cash income paid out as wages has declined. In 1939 the cash farm wage bill amounted to about 6.7 percent of total cash receipts from farm marketings compared with about 9 percent in the 1920's.



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- 5. Farm wage rates and cash farm expenditures are dependent upon the interrelated factors of farm and nonfarm income and industrial activity. At the present time, with national income at about 70 billion dollars, the agricultural share is such as to result in an expenditure for farm labor amounting to about .80 percent of the total of national income payments. This proportion tends to be a declining one, corresponding to the decline in the farm and farm labor proportion in the total population. Even if the national income should advance to 75 billion dollars in 1941 the total of expenditures for hired farm labor may fall somewhat short of the amounts paid out in 1938 and 1939 if the cash farm wage share in the national income declines further to only .75 percent in line with the trend of the past 30 years.
- 6. These facts and trends indicate that the aggregate amount of money purchasing power that is likely to be available to hired farm labor in general in the immediate future will continue to be inadequate if hired farm laborers are to enjoy a higher standard of living.



R3I72

United States Department of Agriculture Bureau of Agricultural Economics

Trends in Farm Wages, Farm and Nonfarm Income, Industrial Production and Unemployment.

by

Louis H. Bean Counseler

Presented before the Senate Committee on Education and Labor

Washington, D. C. May 1940

